Evaluating Four Anthrax Decontamination Products—Microbiology Efficacy Testing

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The EPA Office of Pesticide Programs has responsibility for regulating antimicrobial products used to control pathogenic bacteria (including spores), viruses, and other microorganisms on porous and non-porous surfaces. Following an intentional release of anthrax spores into office environments in 2001, the Agency was inundated with requests for use of various decontamination chemicals against *Bacillus anthracis*. EPA needed to decide quickly which product(s) should be used to clean up the contaminated area. The AOAC Sporicidal Activity Test is the laboratory method accepted by the EPA for performance testing of liquid and gaseous sporicides on hard and porous surfaces. The OPP Microbiology Laboratory evaluated four products for efficacy against spores of *Bacillus subtilis* on hard and porous surfaces using the AOAC test. These products included bleach; aqueous chlorine dioxide; a product consisting of organosilaine, quaternary ammonium compounds, and hydrogen peroxide; and a decon foam consisting of a combination of quaternary ammonium compounds, catalase, and hydrogen peroxide. Some worked and some didn't.

This poster explores the procedure used to evaluate these products and the findings from these studies which were used to issue or reject requests for crisis exemptions under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

The poster will present the findings of the laboratory investigation, using tables, charts, and graphics, photographs of laboratory analyses, test carriers, and spores (microscopy).